1857MNRAS..17...55H

of weights. The constitutional peculiarities still remain, but in a milder form.

The system of observation and reduction described in a previous number of the *Monthly Notices* has been continued as before; but it is not intended here to offer any remarks on the results, as through the more pressing nature of other work, Mr. Carrington has not yet been able to give any adequate time to the discussion of the positions observed. The year 1856 has been characterised by the rather frequent occurrence of low south spots, the latitudes 27° south and 35° south having each been more than once visited. As a general remark, it may be stated that when an outbreak occurs on a parallel not previously affected for several months, it is mostly found that two or three other outbreaks succeed at moderate intervals of time, not, however, at the corresponding longitudes, when the rotation of the surface is allowed for; and herein, it is believed by Mr. Carrington, that there lies a something for investigation. This and some other points noticed will, however, be inquired into with better opportunities when more raw material has been accumulated, and when we have arrived at a period of more activity than the present.

Extract of a Letter from Professor Hansen, on an Ancient Eclipse.

(*Communicated by the Astronomer Royal.*)

"I have calculated an ancient eclipse, namely, that of Ennius, of which Cicero gives an account in his work, *De Republicâ*, discovered within the last few years; whence it may be reckoned as one of the most certain and well-established eclipses of antiquity. Ennius says, according to Cicero, 'Nonis Junii soli luna obstitit et nox.' Now, in Cicero's time, the Nones of June fell on the 5th; but, in the time of Ennius, on account of the lunar years and the intercalary month of the Romans, they fell between June 5 and July 4. On this account the following data, which have been investigated for this eclipse, may be considered acceptable:—

399, June 21.

Greenwich Mean Time.	Moon's Longitude.	Moon's Latitude.	Equatoreal Hor. Par^x.	R. A.	Decl.
h m	° ′ ″	° ′ ″	′ ″	° ′ ″	° ′ ″
3 36	82 39 47·4	+0 31 41·1	60 24·65	81 57 37·3	+24 4 13·3
4 48	83 24 0·0	35 45·1		82 45 45·2	10 39·0
6 0	84 8 10·7	39 48·5	22·10	83 33 55·5	16 49·4
7 12	84 52 19·6	43 51·4		84 22 8·5	22 44·3
8 24	85 36 26·6	+0 47 53·7	60 19·35	85 10 23·8	+24 28 23·4

Downloaded from http://mnras.oxfordjournals.org/ at Univ of Iowa-Law Library on June 19, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System

1857MNRAS..17...56T

G.M.T.	Sun's Longitude.		Log. Rad. Vector.	Sun's R.A.	Sun's Decl.
h m	° ′ ″			° ′ ″	° ′ ″
3 36	83 40 1·7			83 5 12·0	+23 35 44·2
6 0	83 45 45·4		0·00708	11 26·5	36 0·9
8 24	83 51 29·1			83 17 41·3	+23 36 17·0

Obliquity = 23° 44′ 57″·8

"These places give the following points of the curve of the central eclipse:—

Longitude, East of Greenwich.	Latitude.
° ′	° ′
8 41	44 4
9 39	43 36
10 38	43 8
11 38	42 40
12 37	42 12

"The central eclipse passes, therefore, very nearly over Rome. I have now obtained for Rome:—

	Mean Time at Rome.
	h m
Beginning of the eclipse generally	6 40
Beginning of the total obscuration	7 30
End of the total obscuration	7 33
End of the eclipse generally	8 20

"On this day the sun set at Rome at $7^h\ 36^m$ Roman Mean Time; the total eclipse was, therefore, quite visible at Rome, and the sun set immediately after the completion of it. By this means does the otherwise unintelligible passage of Ennius, 'Soli luna obstitit et nox,' become quite clear; the poet has simply omitted the word 'simul.'

"Professor Zech has previously found an eclipse at the setting of the sun at Rome; but he obtains only a partial eclipse, and its maximum takes place after the sun has set. His longitude of the moon is 8′ 51″ too small, and his latitude is too great by 1′ 46″."

Abstract of a Report on the Determination of the Latitude at Karachi.

By Lieut. Tennant, of the Bengal Engineers, First Assistant G. T. Survey of India.

The operation took place in March and April 1855. The paragraphs in inverted commas are from the author's MSS.

"It having been considered desirable that the latitude should be well observed in the neighbourhood of Kărāchi, both as an initial element for the Great Indus Series, which will form

Downloaded from http://mnras.oxfordjournals.org/ at Univ of Iowa-Law Library on June 19, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System